

WHAT IS CLAIMED IS:

[C1] An optical film having plural diffusion patterns formed on a light-incident surface and plural prisms formed on a light-emitting surface, wherein each of the diffusion patterns has, in at least one section thereof, a first inclined surface that is curved with a relatively small inclination and a second inclined surface that is oppositely inclined to the first inclined surface with a relatively great inclination.

[c2] The optical film according to Claim 1, wherein an angle of inclination of the first inclined surface is gradually changed from the lowermost point to the uppermost point.

[c3] The optical film according to Claim 1, wherein a formula of

$$5^{\circ} \leq a \leq 30^{\circ}$$

is established wherein an angle of inclination of a segment line connecting the lowermost point to the uppermost point is defined as a.

[c4] The optical film according to Claim 1, wherein formulae of

$$\theta_{\max} - a \leq 10^{\circ}$$

$$a - \theta_{\min} \leq 10^{\circ}$$

are established wherein an angle of inclination of a segment

line connecting the lowermost point to the uppermost point is defined as a , the maximum angle of inclination of the first inclined surface is defined as θ_{\max} , and the minimum angle of inclination of the first inclined surface is defined as θ_{\min} .

[c5] The optical film according to Claim 1, wherein an angle of inclination of the second inclined surface is approximately 70° .

[c6] The optical film according to Claim 1, wherein a boundary area between the first inclined surface and the second inclined surface is formed smooth and curved.

[c7] The optical film according to Claim 1, wherein the prisms are randomly formed in size and position.

[c8] The optical film according to Claim 7, wherein each of the prisms is arranged such that its axial direction is directed toward two or more directions.

[c9] The optical film according to Claim 1, wherein the diffusion patterns are randomly formed in size and random position.

[c10] The optical film according to Claim 9, wherein each

of the diffusion patterns has substantially the same shape to one another.

[c11] A diffusion sheet having plural diffusion patterns formed thereon, wherein each of the diffusion patterns has, in at least one section thereof, a first inclined surface that is curved with a relatively small inclination and a second inclined surface that is oppositely inclined to the first inclined surface with a relatively great inclination.

[c12] A reflector having plural diffusion patterns formed on a light-reflecting surface, wherein each of the diffusion patterns has, in at least one section thereof, a first inclined surface that is curved with a relatively small inclination and a second inclined surface that is oppositely inclined to the first inclined surface with a relatively great inclination.

[c13] A surface light source device comprising a light source, a light guide plate that confines light from the light source for transmitting the same and emits the light from a light-emitting surface, and an optical film according to Claim 1 arranged so as to face the light-emitting surface of the light guide plate.

[c14] A liquid crystal display comprising a light source,

a light guide plate that confines light from the light source for transmitting the same and emits the light from a light-emitting surface, an optical film according to Claim 1 arranged so as to face the light-emitting surface of the light guide plate, and a liquid crystal display panel.